

## ABSTRACT OF THE DISCLOSURE

An optical node for providing transport and switch functions on an incoming optical signal with a plurality wavelengths each with a plurality of signal components in a WDM optical network. The optical node includes a first module for taking, extracting and processing the plurality of wavelengths, a second module with a plurality of input ports and a plurality of output ports which further extract the signal components from the plurality of wavelengths, and a third module for taking and processing the signal components and sending them to the plurality of output ports in the second module. A method of processing the wavelengths in one of the nodes first inputs the optical signal that extracts wavelengths from the optical signal, and further extracts signal components from the wavelengths, to allocate signal components onto the input ports. Finally the method switches the signal components from the input ports to the output ports of the optical node.